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Notice of Allowability	Application No.	Applicant(s)	
	09/237,128	KASTENHOLZ, FRANK	
	Examiner	Art Unit	
	Duc C. Ho	2665	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the appeal brief filed 04-08-05.
2. ☒ The allowed claim(s) is/are 3-5,7,10,11,21-24,26-30 and 32-34.
3. ☒ The drawings filed on 27 August 1999 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).**
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|--|--|
| <ol style="list-style-type: none"> 1. <input type="checkbox"/> Notice of References Cited (PTO-892) 2. <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) 3. <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date _____ 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | <ol style="list-style-type: none"> 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) 6. <input type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____ 7. <input type="checkbox"/> Examiner's Amendment/Comment 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance 9. <input type="checkbox"/> Other _____ |
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DETAILED ACTION

Reason for Allowance

1. Regarding claims 4, 3, 5, 24, 26-28, and 32-34, the prior art fails to teach or suggest in a device for forwarding data packets, the device having a memory containing storage locations, a method comprises the steps of selecting a first one of the storage locations based on a first set of bits contained in the header data, executing an instruction stored at the first selected storage location; and selecting a third one of the storage locations based on contents of the second selected storage locations and a third set of bits contained in the header data, in combination with other limitations, as specified in the independent claims 4, and 24.

Regarding claims 10, 7, and 11, the prior art fails to teach or suggest in a device for forwarding an Internet Protocol (IP) packet toward a destination having a destination address containing a sequence of bits, the method comprises the steps of using a first set of bits from the destination address of the IP packet as an index to locate a first entry in a first forwarding lookup that stores a first instruction and a first set of bits, executing the first instruction to, using the first set of bits, provide direction to a second forwarding lookup, and employing a content of the third entry in forwarding the IP packet, in combination with other limitations.

Regarding claim 29, the prior art fails to teach or suggest in a device for forwarding an Internet Protocol (IP) packet toward a destination having a destination address composed of a sequence of bits, the device including a first forwarding lookup and a second forwarding lookup, a computer-readable medium holding computer executable instructions for performing a method,

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the method comprises the steps of using a prefix of multiple bits from the destination address of the IP packet as an index to locate a first entry in the first forwarding lookup that stores a first instruction and a first set of bits, and executing the first instruction to provide direction, using the first set of bits, to the second forwarding lookup, in combination with other limitations.

Regarding claims 21-23, the prior art fails to teach or suggest a switch/router for directing IP packets toward destination, comprising a first lookup array containing entries indexed by leading bits of destination address for IP packet, each entry containing an instruction to assist in forwarding an IP packet towards a destination, and a forwarding engine for forwarding IP packets to destinations, where for each IP packet being forwarded, the forwarding engine accesses at least one entry in the lookup arrays indexed by a portion of a destination address for the IP packet being forwarded and executing the instruction contained in the entry that is accessed in combination with other limitations.

2. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Duc Ho whose telephone number is (571) 272-3147. The examiner can normally be reached on Monday through Friday from 7:00 am to 3:30 pm.

If attempt to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Huy Vu, can be reached on (571) 272-3155.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (571) 272-2600.

The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

4. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Patent Examiner

A handwritten signature in black ink, appearing to read "Duc Ho", written over the printed name.

Duc Ho

05-23-05